## **Power Measurement Apparatus and Method Thereof**

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## **Abstract**

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In order to detect and measure the power of radio or microwave frequency signals it is known to employ thermoelectric devices such as a thermistor or a thermocouple. Such thermoelectric devices can have slow response times and lack sensitivity due to 'thermal lag' and poor conduction between a load resistor and the thermoelectric device. The present invention therefore provides an apparatus for the measurement of a power of a radio or microwave frequency signal comprising a resistive element for generating a thermal emission in response to an incident signal and an infra-red photodetector arranged to receive the thermal emission and thereby generate an output signal corresponding to the power of the incident signal. The present invention obviates or at least mitigates the disadvantages associated with known thermoelectric devices.